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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,728	07/31/2003	Charlie Steinmetz	200209322-1	2778
7590	01/11/2005			
HEWLETT-PACKARD COMPANY Intellectual Property Administration P.O. Box 272400 Fort Collins, CO 80527-2400				EXAMINER STEPHENS, JUANITA DIONNE
			ART UNIT 2853	PAPER NUMBER

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/632,728	STEINMETZ ET AL.
Examiner	Art Unit	
Juanita D. Stephens	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on Preliminary Amendment filed 10/25/04.  
2a)  This action is FINAL. 2b)  This action is non-final.  
3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-54 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 17-27 and 46-51 is/are allowed.

6)  Claim(s) 1-4, 6, 7, 14-16, 28, 30-34, 44, 45, 52 and 53 is/are rejected.

7)  Claim(s) 5, 8-13, 29, 35-43 and 54 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 31 July 2003 is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "172" has been used to designate both "alignment pocket" and "terminal surface". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Reference number "270" as shown on Fig. 20. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as

per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Reference number "272" is not shown as indicated on page 21, line 13. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

4. The disclosure is objected to because of the following informalities:

On page 9, line 17 replace "that" with --than--.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-4, 6-7, 14-16, 28, 30-34, 44- 45, and 52-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Childers et al. (US 6,322,205 B1).

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Childers et al. discloses a printing fluid container (12) configured for lateral insertion in a container bay of a printing system (Fig. 7) comprising: 1) a reservoir (22) configured to hold printing fluid (col 4, Ins 4-5), wherein the reservoir includes a substantially planar front surface (surface of leading cap 50 as shown on Fig. 3) and a bottom surface defining a well (area which contains ink as defined in Riverside Webster's II New College Dictionary )in a low portion of the reservoir, 2) a fluid interface (fluid outlet 30) on the front surface adjacent the well, wherein the fluid interface is configured to releasably receive a fluid connector (needle 108) to laterally draw printing fluid from the well (col 4, In 67-col 5, In 1), 3) wherein the fluid interface includes a septum (122) mounted on the reservoir to receive a laterally inserted fluid connector

(needle 108) (col 7, Ins 35-36, Fig. 10A), 4) wherein the fluid interface further includes a spring member (126) and a plug member (ball 124), and wherein the spring member yieldably biases the plug member against the septum to create a fluid tight seal (col 7, Ins 37-41), 5) wherein the reservoir includes a bottom surface configured to direct printing fluid toward the well, 6) an air interface (air inlet 28 ) located on the front surface above the fluid interface (col 4, In 67-col 5, In 1), 7) wherein the fluid interface and the air interface are vertically aligned on the substantially planar front surface of the printing fluid container ( as shown on Fig. 3), 8) a free volume of ink held within the reservoir (col 4, Ins 4-5), 9) a free volume of preconditioner held within the reservoir (col 4, Ins 52-56), 10) a free volume of fixer held within the reservoir (col 4, Ins 52-56), 11) means for holding a volume of printing fluid (reservoir 22), wherein the means for hold defines a bottom (the bottom is equivalent to the leading cap surface 50 for claim 28) well (the well is the portion defined by the fluid outlet 30 in which the needle 108 is inserted) of reduced cross sectional area (as shown in Fig. 10A), means for directing printing fluid into the well (col 7, Ins 35-41; col 4, In 58-col 5, In 4, Fig. 10A), means (fluid outlet 30) for laterally receiving a fluid connector (needle 109) to draw printing fluid from the well (col 7, Ins 35-41; col 4, In 58-col 5, In 4, Fig. 10A), 12) a reservoir (22) configured to hold a free volume of ink (19), the reservoir including an upright face (the upright face is equivalent to the leading cap surface 50 for claim 30) with a downwardly extending protrusion (the portion defined by the fluid outlet 30 in which the needle 108 is inserted) and a fluid interface (fluid outlet 30) positioned on the downwardly extending protrusion and configured to access the free volume of ink (as shown in Fig. 10A), 13) a leading

surface (leading cap 50), a top surface (surface located closest to air inlet 28 for claim 34), a bottom surface (surface located closest to fluid outlet 30 for claim 34), an air interface (28) positioned on the leading surface proximate to the top surface and a printing fluid interface positioned on the leading surface proximate the bottom surface (as shown on Figs. 3 and 10A), 14) wherein the printing fluid interface is centered between opposite sides in the container bay (receiving station 89) upon lateral insertion of the container (12) in the container bay (col 6, ln 15-17, Figs. 7 and 8), 1and 5) a well portion configured to provide a first degree of alignment, a front face (leading cap 50) configured to provide a second degree of alignment and an alignment pocket (keying and guiding features 58 and 60) configured to provide a third degree of alignment, and a keying pocket (keying and guiding features 58 and 60) providing a fourth degree of alignment (col 5, Ins 29-41)

***Allowable Subject Matter***

7. Claims 5, 8-13, 29, 35-43, and 54 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 9 will be allowed when claim 8 is rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 36 will be allowed when claim 35 is rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 38 will be allowed when claim 35 is rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 40-

43 will be allowed when claim 39 is rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach, suggest or render obvious the limitation of wherein the bottom surface includes a trough portion that protrudes downwardly from a remaining portion of the bottom surface and wherein the well is at least partially defined by the trough portion, recited in claim 5. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the limitation of wherein the cross section area of the reservoir in the well is less than a cross sectional area of the reservoir above the well, recited in claim 8. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the limitation of wherein the fluid interface and the well are cooperatively configured to deliver printing fluid from the reservoir until such reservoir is at least 90% drained, recited in claim 10. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the limitation of wherein the fluid interface and the well are cooperatively configured to leave a volume of stranded printing fluid which is no more than approximately 5% of a volume off the

reservoir, recited in claim 11. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the limitation of wherein the fluid interface and the well area cooperatively configured to provide for delivery of printing fluid from the reservoir until no more than approximately 2 cubic centimeters of printing fluid remains in the reservoir, recited in claim 12. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the limitation of wherein the fluid interface and the well area cooperatively configured to provide for delivery of printing fluid from the reservoir until no more than approximately 1 cubic centimeters of printing fluid remains in the reservoir, recited in claim 13. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the limitation of wherein the bottom well is configured to contain a volume of printing fluid which is less than 10% of a volume of the means for holding, recited in claim 29. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the limitation of wherein the printing fluid interface is positioned within 10 millimeters of the top surface, recited in

claim 35. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the limitation of wherein the printing fluid interface is positioned within 5 millimeters of the bottom surface, recited in claim 37. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the limitation of wherein the leading surface including a downwardly extending protrusion and the bottom surface defines a downwardly extending well substantially aligned with the downwardly extending protrusion, and wherein the printing fluid interface is positioned on the downwardly extending protrusion to access the downwardly extending well, recited in claim 39. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the limitation of wherein the third degree of alignment is more precise than the second degree of alignment, and wherein the second degree of alignment is more precise than the first degree of alignment, recited in claim 54. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

9. Claims 17-27, and 46-51 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach, suggest or render obvious the combination of the reservoir having a substantially planar front face and a bottom defining a protruding well into which printing fluid collects and a fluid interface on the front face and configured to access the reservoir from laterally adjacent the well when the printing fluid container is installed, recited in claim 17. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the combination a fluid interface positioned on an upright face of the reservoir to accommodate draining of the free volume of ink until not more than 10% of the inner cavity contains the free volume of ink, wherein the upright face is substantially planar and extends from a bottom of the reservoir to a top of the reservoir, recited in claim 25. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

The prior art does not teach, suggest or render obvious the combination the reservoir having an upright leading surface with a downwardly extending protrusion and a bottom surface defining a downwardly extending well substantially aligned with the downwardly extending protrusion and a fluid interface positioned on the downwardly extending protrusion and configured to releasably receive a fluid connector into a position to draw printing fluid from the downwardly extending well, recited in claim 46. This invention solves the problem of allowing large volumes of ink to be stored and delivered without frequent replacement.

#### **Contact Information**

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juanita D. Stephens whose telephone number is (571) 272-2153. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



January 5, 2005

Juanita D. Stephens  
Primary Examiner  
Art Unit 2853